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1-23. (CANCELED)

24. (CURRENTLY AMENDED) A suspension system for a vehicle with a chain driven rear wheel comprises:

- i) a rear suspension assembly and chain driven transmission arrangement that offers ~~very high levels of~~ anti-brake lift and anti-squat and does so consistently through a large range of rear suspension ~~movement travel~~; ↔
- ii) a front suspension assembly/steering system with a steering axis inclined in the side view at an angle of castor which intersects the ground in front of ~~[[the]] a~~ center of ~~[[the]] a~~ contact patch, the front suspension assembly having ~~a high degree of~~ anti-brake dive; wherein: ↔
- iii) the front and rear suspension assemblies are interconnected in such a way as to offer low resistance to an anti-phase motion and higher resistance to an in-phase motion. ↔

25. (CURRENTLY AMENDED) The suspension system according to claim 24, wherein the rear suspension assembly comprises a trailing arm (12, 42, 60, 62, 68), a rear wheel (10) being mounted to the trailing arm (12, 42, 60, 62, 68) at the rearward end thereof by a hub (34), the trailing arm (12, 42, 60, 62, 68) being attached to a frame (14) of the vehicle by a pivot (16, 46, 66, 72), such that ~~[[the]] a~~ tension side of a chain (18) of the chain transmission under tension, intersects a line interconnecting ~~[[the]] a~~ center of the wheel (10) and ~~[[the]] an~~ axis of the pivot (16, 46, 66, 72), at a point (24) intermediate of the center of the wheel (10) and axis of the pivot (16, 46, 66, 72). ↔

26. (CURRENTLY AMENDED) The suspension system according to claim 25, wherein ~~[[a]] the~~ chain tensioning means (22) is provided to accommodate coupling between the rear suspension assembly and chain transmission. ↔

27. (CURRENTLY AMENDED) The suspension system according to claim 25, wherein the rear wheel (10) has a hub mounted brake (40), a brake reaction lever (32) being attached to the hub (34), so that the hub (34) may rotate relative to the brake reaction lever (32) as long as the brake (40) is not applied, a brake reaction link (30) connecting the brake reaction lever (32) to a point (36) on ~~[[the]] a~~ vehicle frame (14), at a level above the axis of the pivot (16) between the trailing arm (12) and frame (14). ↔

10/19/06 8:07 AM

10/535,580

28. (PREVIOUSLY PRESENTED) The suspension system according to claim 25, wherein the rear suspension and chain transmission are substantially decoupled throughout the full range of suspension travel.

29. (PREVIOUSLY PRESENTED) The suspension system according to claim 28, wherein a drive sprocket wheel (20) mounted on the frame is connected to a driven sprocket wheel (50) on the wheel (10), via an idler sprocket wheel (44, 44', 44''), the idler sprocket wheel (44, 44', 44'') being positioned such that the length of chain (18) under tension between the drive sprocket wheel (20) and idler sprocket wheel (44, 44', 44'') and, between the idler sprocket wheel (44, 44', 44'') and driven sprocket wheel (50) will remain substantially constant, throughout the full range of suspension travel.

30. (CURRENTLY AMENDED) The suspension system according to claim 29, wherein the idler sprocket wheel (44) is mounted on the trailing arm (42), ~~[[the]] a point~~ at which the length of chain (18) between the drive sprocket wheel (20) and the idler sprocket wheel (44) first contacts the idler sprocket wheel (44), ~~coincides~~ coinciding with the axis of the pivot (46) between the trailing arm (42) and frame (14).

31. (PREVIOUSLY PRESENTED) The suspension system according to claim 29, wherein the idler sprocket wheel (44') is mounted on the frame (14), the length of chain (18) between the idler sprocket wheel (44') and the driven sprocket wheel (50) passing through the axis of the pivot (46) between the trailing arm (42) and frame (14) through the full movement of the trailing arm (42).

32. (CURRENTLY AMENDED) The suspension system according to claim 29, wherein the wheel hub (34) is mounted on a hub carrier (60), the hub carrier (60) being mounted to the frame (14) by a pair of trailing arms (62,68), the trailing arms (62,68) converging towards the frame (14), the axis of the length of chain (18) between the idler sprocket wheel (44) and the driven sprocket wheel (50) passing through ~~[[the]] a point~~ of intersection (V) of the axes of the trailing arms (62,68).

33. (PREVIOUSLY PRESENTED) The suspension system according to claim 30, wherein the chain tensioning means (48) is provided in the length of chain (18) from the driven sprocket wheel (50) to the drive sprocket wheel (20).

10/19/06 4:07 AM

- 3 -

10/535,580

34. (CURRENTLY AMENDED) The suspension system according to claim 30, wherein ~~[[the]]~~ first and second idler sprocket wheels (44") are drivingly interconnected, ~~[[one]]~~ the first idler sprocket wheel (44") being drivingly connected to the drive sprocket wheel (20) by a first chain (18') and the ~~[[other]]~~ second idler sprocket wheel (44") being drivingly connected to the driven sprocket wheel (50) by a second chain (18").

35. (PREVIOUSLY PRESENTED) The suspension system according to claim 29, wherein the chain (18, 18") between the idler sprocket wheel (44, 44', 44") and the driven sprocket wheel (50) has an angle to the horizontal, in side elevation of from 25 to 50 degrees.

36. (CURRENTLY AMENDED) The suspension system according to claim 24, wherein the front suspension assembly comprises a fork assembly (70), the fork assembly (70) being connected at its upper end to a steering assembly (72,98) by means of an upper wishbone (74) and, intermediate of its ends, to a frame (14) by a lower wishbone (76), in a manner which will allow the transmission of steering movements to the fork assembly (70); a front wheel (84) being rotatably connected to ~~[[the]]~~ a lower end of the fork assembly (70) by means of a hub (34), the front wheel (84) having a hub mounted brake (40), a brake reaction lever (90) being attached to the hub (34), so that the hub (34) may rotate relative to the brake reaction lever (90) as long as the brake (40) is not applied, a brake reaction link (92) connecting the brake reaction lever (90) to the upper wishbone (74), ~~[[the]]~~ a connection (82) of the fork assembly (70) to the upper wishbone (74) being intermediate of ~~[[the]]~~ a connection~~[[s]]~~ (80~~[[, 96]]~~) of the upper wishbone (74) to the steering mechanism (72,98) and a connection (96) of the brake reaction link (92) to the upper wishbone (74).

37. (PREVIOUSLY PRESENTED) The suspension system according to claim 24, wherein the front and rear suspension assemblies are interconnected by means of a balance beam (104, 144), the balance beam (104, 144) being connected at a forward end to the front suspension assembly and at a trailing end to the rear suspension assembly, such that for in-phase motion the front and rear suspension assemblies will apply a load to the balance beam (104, 144) in the same direction and for anti-phase motion the balance beam (104, 144) will pivot about a point intermediate of the forward and trailing ends so that a load applied to the balance beam (104, 144)

10/19/2006 4:27 AM

10/535,580

by one of the front and rear suspension assemblies will be transmitted to the other of the front and rear suspension assemblies, in the opposite direction.

38. (PREVIOUSLY PRESENTED) The suspension system according to claim 37, wherein a pair of spring/damper units (112, 114) act between the frame (14) and the balance beam (104, 144), the spring/damper units (112, 114) being connected to the balance beam (104, 144) at axially spaced locations (118), whereby for in-phase motion both spring/damper units (112, 114) will be in compression, while for anti-phase motion, one spring/damper unit (112, 114) will be in compression while the other spring/damper unit (114, 112) extends, the balance beam (104, 144) pivoting about the connection (118) thereof with the spring/damper unit (112, 114) under compression.

39. (PREVIOUSLY PRESENTED) The suspension system according to claim 24, wherein the front and rear suspension assemblies are interconnected by a balance lever (154), the front and rear suspension systems being connected to the balance lever (154) by first and second spring/damper units (150, 160) and a third spring/damper unit (164) acting between the balance lever (154) and vehicle frame (14), the third spring/damper unit (164) biasing the balance lever (154) to a neutral balance position, the front and rear suspension assemblies being connected to the balance lever (154) such that; for in-phase motion first and second spring/damper units (150, 160) will be compressed, the balance lever (154) being retained in its neutral balance position by the third spring/damper unit (164); and for anti-phase motion the first and second spring/damper units (150, 160) act as a substantially rigid link, the balance lever (154) pivoting against the third spring/damper unit (164), so that a load applied to the balance lever (154) by one of the front and rear suspension assemblies will be transmitted to the other of the front and rear suspension assemblies, in the opposite direction.

40. (CURRENTLY AMENDED) The suspension system according to claim 24, wherein [[the]] plungers (172, 182, 186, 192) attached to the front and rear suspension assemblies are interconnected by a cage (174), first and second spring means (180, 190) acting between heads (182, 192) of the plungers (172, 182, 186, 192) and adjacent inner ends of the cage (174), and further spring means (176, 188) acting between the cage (174) and the vehicle frame (14), to bias the cage (174) to a neutral

10:14:00 AM

10/535,580

balance position, whereby; for in-phase motion the first and second spring means (180, 190) will be compressed, the cage (174) being retained in its neutral balance position by the further spring means (176, 188); and for anti-phase motion the load applied to one of the first and second spring means (180, 190) by movement of the suspension assembly, causing the cage (174) to move from its balance position against the restoring force applied by the further spring means (176, 188), so that a load applied to the cage (174) by one of the front and rear suspension assemblies will be transmitted to the other of the front and rear suspension assemblies, in the opposite direction.

41. (CURRENTLY AMENDED) The suspension system according to claim 24, wherein [[the]] means (206, 236) is provided for adjustment of the interconnection, to selectively alter the pitch attitude of the vehicle. ◆◆

42. (CURRENTLY AMENDED) The suspension system according to claim 24, wherein [[the]] means (230, 240, 246) is provided for adjustment of the interconnection to selectively alter the suspension height. ◆◆

43. (CANCELED)

44. (PREVIOUSLY PRESENTED) The suspension assembly according to claim 36, wherein the fork assembly (70) is connected to the upper wishbone (74) by a pivot (82) which allows pivotal motion about an axis parallel to the axis of rotation of the wheel (84), while permitting some angular compliance in a plane at right angles to the axis of the fork assembly (70).

45. (PREVIOUSLY PRESENTED) The suspension assembly according to claim 36, wherein the fork assembly (70) is connected to the upper wishbone (74) by a universal joint (82), the axis of the universal joint (82) being coaxial with the axis of the fork assembly (70).

46. (PREVIOUSLY PRESENTED) The suspension assembly according to claim 44, wherein the fork assembly (70) is connected to the lower wishbone (76) by a spherical joint (88).

10/19/2006 02:27 PM